

**PLAN VIEW**

WIDTH VARIES  
MIN. AS PER  
LOCAL BUILDING CODES

RB 10" OR 24" COPING UNIT AS TREAD  
ALL COURSES TO BE ADHERED TOGETHER USING LANDSCAPE ADHESIVE

RB STANDARD UNIT - BACK RIBS TO BE REMOVED FOR NEAR VERTICAL  
ALL COURSES TO BE ADHERED TOGETHER USING LANDSCAPE ADHESIVE

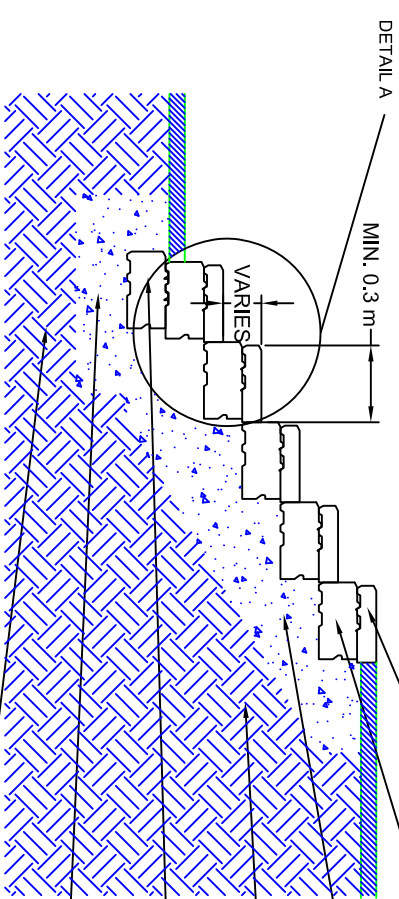
FREE-DRAINING 0-19 mm (0-3/4") WELL GRADED CRUSHED ANGULAR  
MATERIAL WITH LESS THAN 8% PASSING THE No. 200 SIEVE COMPACTED  
TO MINIMUM 98% S.P.M.D.D.

ORIGINAL COMPETENT RETAINED SOIL ASSUMED TYPE II

BASE REQUIRES MINIMUM ONE COURSE RB STANDARD UNIT  
AT BOTTOM STEP  
ALL COURSES TO BE ADHERED TOGETHER USING LANDSCAPE ADHESIVE

MINIMUM 200 mm (8") OF 0-19 mm (0-3/4") WELL GRADED CRUSHED ANGULAR  
MATERIAL WITH LESS THAN 8% PASSING THE No. 200 SIEVE COMPACTED  
TO MINIMUM 98% S.P.M.D.D.

ORIGINAL COMPETENT SOIL OR COMPACTED STRUCTURAL FILL (BY OTHERS)  
TO HAVE A MINIMUM BEARING CAPACITY OF 150 kPa (3000 psf)



**CROSS-SECTION**

**DRAWING:**

**RB WALL  
TYPICAL STEP DETAIL**

**PROJECT:**

RB Wall  
STANDARD ENGINEERING

REV.	DATE	DESCRIPTION	BY
0	JULY 25/11	ISSUED FOR USE	DPS

**RB Wall™**



**NAVASCAP**

BY PERMACON

**GENERAL NOTES:**

1) EXCAVATE FOR FOOTING TO MINIMUM DEPTH OF 300 mm (12 in.) OR UNTIL COMPETENT SOIL IS REACHED OR FILL WITH COMPACTED STRUCTURAL FILL (BY OTHERS). THE FOUNDING SOIL MUST BE INSPECTED BY THE GEOTECHNICAL ENGINEER TO CONFIRM ADEQUATE BEARING CAPACITY. SLOPE STABILITY AND GLOBAL STABILITY, WHERE REQUIRED BY GEOTECHNICAL ENGINEER, PLACE ENGINEERED FILL COMPRISING OF APPROVED GRANULAR MATERIAL PLACED IN 250 mm (10") LIFTS AND COMPACTED TO 98% S.P.M.D.D. BACKFILLING AND COMPACTED TO BE CARRIED OUT UNDER GEOTECHNICAL SUPERVISION. PERMACON IS NOT RESPONSIBLE FOR RETAINING A GEOTECHNICAL ENGINEER TO OVERSEE CONSTRUCTION OF RETAINING WALL.

2. EXCAVATION TO ALLOW FOR THE THICKNESS OF THE WALL PLUS A SUFFICIENT DISTANCE TO ALLOW FOR COMPACTED GRANULAR BACKFILL BEHIND THE WALL. EXCAVATE ON A SUITABLE BACK ANGLE DEEP ENOUGH TO REACH ORIGINAL COMPETENT SOIL.

3. PLACE 200 mm (8") OF 0-19 mm (0-3/4") WELL GRADED CRUSHED ANGULAR GRANULAR MATERIAL WITHIN FOOTING EXCAVATION AND COMPACT TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY. BASE MATERIAL TO HAVE LESS THAN 8% PASSING THE No. 200 SIEVE.

4. LEVEL THE FIRST COURSE AND PLACE TOP FLUSH WITH THE DESIRED FINISHED GRADE IN FRONT OF THE WALL. SLOPES AT TOE OF WALL MAY REQUIRE MORE UNITS TO BE BURIED (CONSULT QUALIFIED PROFESSIONAL ENGINEER FOR GUIDANCE).

5. THE STAIR RISE CAN BE ADJUSTED BY THE PLACEMENT OF THE BASE COURSE. REFER TO LOCAL BUILDING CODES FOR THE MAXIMUM AND MINIMUM STAIR RISERS.

6. WALL APPEARANCE TO BE SPLIT FACE AND COLOR TO BE DETERMINED BY OWNER.

7. BACKFILL THE STEPS AND RETURN WALLS WITH FREE-DRAINING SAND AND GRAVEL MATERIAL AS THE HEIGHT INCREASES. IDEALLY EVERY ONE OR TWO COURSES. AT NO TIME SHOULD THE HEIGHT EXCEED 2 COURSES WITHOUT BACKFILLING UNLESS OTHERWISE DIRECTED BY THE ENGINEER. BACKFILL MUST BE COMPACTED TO 95% S.P.M.D.D. BACKFILL MATERIAL TO HAVE LESS THAN 8% PASSING No. 200 SIEVE.

8. ALL CONSTRUCTION OPERATIONS INCLUDING BACKFILLING AND COMPACTION TO BE COMPLETED UNDER GEOTECHNICAL SUPERVISION.

9. POOR SOIL CONDITIONS AND EXCESSIVE MOISTURE MAY REQUIRE ALTERNATE DRAINAGE REQUIREMENTS AND DESIGN MODIFICATIONS.

10. THE TOP MUST BE LANDSCAPED TO PROMOTE SURFACE RUNOFF OVER THE TOP OF THE STEPS AND RETURN WALLS. NO UNUSUAL SURCHARGE LOADING SHOULD BE ADJACENT TO THE TOP OF THE STEPS AND RETURN WALLS.

11. APPROPRIATE RESTRAINT MUST BE PROVIDED AS PER LOCAL BUILDING CODES. PROVISIONS OF A RESTRAINT AND/OR HANDRAIL ON TOP OF THE RETURN WALLS AND ADJACENT TO THE STEPS MAY REQUIRE DESIGN MODIFICATIONS.

12. ALL PRODUCT NAMES AND STYLIZED REPRESENTATIONS ARE TRADEMARKS OF PERMACON, OR APPROVED FOR USE BY PERMACON COMPANIES.

13. ALL PRODUCTS ILLUSTRATED ARE SUBJECT TO PATENTS AS FOLLOWS:  
RB - CANADA 1,307,675  
- USA 4,860,505

14. THE APPLICABILITY OF THESE RETAINING WALL SECTIONS MUST BE REVIEWED ON A SITE SPECIFIC BASIS BY A QUALIFIED PROFESSIONAL ENGINEER.

SOIL PARAMETERS USED IN DESIGNS:  
REINFORCED SOIL: f = 35 DEGREES, q = 22 kN/m3 (140 psf)  
RETAINED SOIL: f = 28 DEGREES, g = 19 kN/m3 (120 psf)

**DESIGN ENGINEER:**

DRAWN BY: DPS  
CHD BY:

DRAWING NO.

DATE: JULY 25, 2011

SCALE: NOT TO SCALE

RB-  
TYPICAL  
STEP DETAIL

FILE NAME: TYPICAL STEP DETAIL.dwg